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TD A MOINTEA		Application Numbe		10/576,481	
TRANSMITTAL	-	Filing Date		April 21, 2006	
FORM		First Named Inventor		Zissimos Mourelatos	
		Art Unit	***	To be determined	
(to be used for all correspondence after	initial filing)	Examiner Name		To be determined	
Total Number of Pages in This Submiss		Attorney Docket Nu	mber	UPN0028-100 (Q3313)	
	ENCLO	SURES (check all tha	apply)		
Fee Transmittal Form	☐ Drawing(s	3)		After Allowance Communication to TC	
Fee Attached/Authorized	Licensing	-related Papers		Appeal Communication to Board of Appeals and Interferences	
Amendment / Reply	Petition			Appeal Communication to TC Appeal Notice, Brief, Reply Brief)	
After Final		Convert to a al Application		Proprietary Information	
Affidavits/declaration(s)		Attorney, Revocation of Correspondence		Status Letter	
Extension of Time Request	Terminal			Other Enclosure(s) (please identify below):	
Express Abandonment Request	Request f	for Refund		n PTO SB/08a (4pp.); 35 reference cited; 32 es of references submitted; return card.	
☐ Information Disclosure Statement	☐ Lar	ndscape Table on CD			
Certified Copy of Priority Document(s)	Remarks				
Reply to Missing Parts/ Incomplete Application Reply to Missing Parts under 37 CFR1.52 or 1.53		MAIL LABEL NO			
SIG	NATURE OF	APPLICANT, ATTOR	NEY, O	R AGENT	
Firm	Cozen O'Conno	or			
Signature	UI				
Printed Name	Mark DeLuca				
Date	2.23.0	7	Reg. No.	33,229	
	CERTIFICA	TE OF TRANSMISS	ON/MA	ILING	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date

**PATENT** 

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Zissimos Mourelatos et al.

Serial No.: 10/576,481

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Group Art Unit: To be determined

Filed: **April 21, 2006** 

Examiner: To be determined

Title: SHORT INTERFERING RNA AND MICRO-RNA COMPOUNDS AND METHODS OF DESIGNING, MAKING AND USING THE SAME

EXPRESS MAIL LABEL NO: EV 770972174 US

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## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

## INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56 and in accordance with 37 C.F.R. §§ 1.97 and 1.98, information relating to the above-identified application is hereby disclosed, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO Form SB/08A and Forms SB/08B, formerly known as PTO Form 1449, submitted herewith.

Inclusion of the information submitted herewith is not to be construed as an admission that the information is material as that term is defined in 37 C.F.R. § 1.56(b).

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being	filed:
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	within three months of the filing date of the patent application.
	within three months of the date of entry into the national stage as set forth in
	37 C.F.R. § 1.491 of the international application.
$\boxtimes$	before the mailing date of a first Office Action on the merits.

tatement under 37 C.F.R. § 1.97(e) (see "Statement" below);
or
ee of \$180.00 set forth in 37 C.F.R. § 1.17(p); or
ee is owed by the applicant(s).
being filed in connection with the first or second After ssion, and accordingly is accompanied by the Statement under 37 7(e) (see "Statement" below) and the fee of \$180.00 as set forth in 1.17(p), is attached.
ailing date of a Final Office Action under 37 C.F.R. § 1.116 or a Blowance under 37 C.F.R. § 1.311, but before the payment of the accordingly is accompanied by the Statement under 37 C.F.R. ee "Statement," and "Fees" below).
the references (except the U.S. Patent documents) listed on the O Forms SB/08a and SB/08b, formerly known as PTO Form 1449,
THAT:
new of the voluminous nature of references, and the ihood that this reference is available to the Examiner, a copy is not osed herewith.
coordance with 37 C.F.R. § 1.98(d), copies of the following rences listed on the attached PTO Form SB/08A and PTO Form 08B, formerly known as PTO Form 1449 are not enclosed herewith tuse they were previously cited by or submitted to the U.S. Patent Trademark Office in patent application(s) for which a claim for rity under 35 U.S.C. § 120 have been made in the instant dication.

	_	If any of the foregoing publications are not available to the Examiner Applicant will endeavor to supply copies at the Examiner's request.
State	ment und	er 37 C.F.R. § 1.97(e)
	in the Ir	dersigned attorney hereby states that each item information contained aformation Disclosure Statement was cited in a communication from a patent office in a counterpart foreign patent application not more than onths prior to the filing of the Information Disclosure Statement.
Fees		
$\boxtimes$	No Fee	is owed by the applicant(s).
		formation Disclosure Statement Fee of \$180.00 under 37 C.F.R. b) is enclosed herewith.
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		d is a check in the amount of \$ This form is ed in duplicate.
		Deposit Account No. 50-1275 in the amount of \$180.00. This form is ed in duplicate.
$\boxtimes$	Please 6	charge any deficiency or credit any overpayment to Deposit Account 5.
$\boxtimes$	No fee	or Statement is required under 37 C.F.R. § 1.97(b).
		Respectfully submitted,  Mark DeLuca Registration No. 33,229

Dated: 2、23.07

COZEN O'CONNOR, P.C. 1900 Market Street, 5<sup>th</sup> Floor Philadelphia, PA 19103-3508 (215) 665-2000 - Telephone (215) 665-2013 - Facsimile

PTO/SB/08A (07-05)

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ute for form 1449A/PTO

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Sheet

Examiner

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

	Complete if Known	
Application Number	10/576,481	
Filing Date	April 21, 2006	
First Named Inventor	Zissimos Mourelatos	
Art Unit	To be determined	
Examiner Name	To be determined	
Attorney Docket Number	UPN0028-100 (Q3313)	

			U.S. P	ATENT D	OCU	MENTS		
Examiner Initials *	Cite No.1	Document Number  Number - Kind Code <sup>2</sup> (if known)	Publica MM-DI	Publication Date MM-DD-YYYY		of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	AA	US-2003/019363	07-24	-2003		Kay et al.		
	AB	US 2003-0175727	09-18	3-2003	Wang et al.			
	AC	US 2003-0180756	09-25	5-2003		Yang Shi et al.		
_			OREIGN	PATEN	I DOC	UMENTS	<del></del>	
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code <sup>3</sup> - Number <sup>4</sup> - Kind known)	Code <sup>5</sup> (if	Publication MM-DD-1		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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								<u> </u>

l	Signature		Considered	
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	considered. Include	de copy of this form with next communication to applicant. 1 A	pplicant's unique cita	tion designation number (optional). 2 See Kinds Codes of
	LISPTO Patent D	acuments at uses usate any or MRED 901.04. 3 Enter Office t	hat iccued the docum	nent by the two-letter code (WIPO Standard ST 3) *For

Date

Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. § Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. § Applicant is to place a check mark here if English language

Translation is attached.

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Substitute	for form 1449B/PT	)	-	Complete if Known				
		<b>D</b> 10	01 001105	Application Number	10/576,481			
	<del>-</del>		CLOSURE	Filing Date	April 21, 2006			
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Zissimos Mourelatos			
				Art Unit	To be determined			
	(Use as many sh	eets as	necessary)	Examiner Name	To be determined			
Sheet	2	of	4	Attorney Docket Number	UPN0028-100 (Q3313)			

		NON DATENT LITEDAT	IDE DOCUMENTS					
		NON PATENT LITERAT						
Examiner Initials *	Cite No.	Include name of the author (in CAPITAL LETTI item (book, magazine, journal, serial, symp number(s), publisher, city	osium, catalog, e	tc.), date, page(s), volume-issue	T²			
	AD Bernstein, E. et al., "Role for a bidentate ribonuclease in the initiation step of RNA interference,"  Nature (Jan 18,2001), 409,363-3.							
	AE	Carmell M. A. et al., "The Argonaute family: te stem cell maintenance, and tumorigenesis," Gen						
	AF	Catalanotto, G. et al., "Gene silencing in worms	and fungi," Nati	ure (Mar 16, 2000) 404, 245.				
	Doi N. et al., "Short-interfering-RNA-mediated gene silencing in mammalian cells requires Dicer at eIF2C translation initiation factors," Curr Biol (Jan 8, 2003), 13,41-6.							
	АН	Elbashir et al., "Functional anatomy of siRNAs for mediating efficient RNAi in Drosophila melanogaster embryo lysate," <i>Embo J</i> (Dec 3,2001), 20,6877-88.						
	AI	Fire et al.," Potent and specific genetic interference by double-stranded RNA in Caenorhabditis elegans," <i>Nature</i> (Feb 19,1998), 391,806-11.						
	AJ	Grishok et al., "Genes and mechanisms related temporal RNAs that control C. elegans develop	to RNA interferen	nce regulate expression of the small Cell (Jul 13,2001), 106, 23-34.				
	AK	Hamilton et al., "A species of small antisense R Science (1999), 286, 950-2	NA in posttransc	riptional gene silencing in plants,"				
	AL Hammond, S. M. et al., "Argonaute2, a link between genetic and biochemical analyses of RNAi,"  Science (Aug 10,2001), 293,1146-50.  Hutvagner et al., "A cellular function for the RNA-interference enzyme Dicer in the maturation of the let-7 small temporal RNA," Science (Aug 3,2001), 293, 834-8.							
	AN	Hutvagner et al., "A microRNA in a multiple-to 20,2002), 297,2056-60.	urnover RNAi en	zyme complex," Science (Sep				
Examiner Signature			Date Considered					

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

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Substitute for form 1449B/PTO				Complete if Known		
				Application Number	10/576,481	
INFORMATION DISCLOSURE				Filing Date	April 21, 2006	
STATEMENT BY APPLICANT		First Named Inventor	Zissimos Mourelatos			
				Art Unit	To be determined	
(U:	se as many shee	ts as r	ecessary)	Examiner Name	To be determined	
Sheet 3	3	of	4	Attorney Docket Number	UPN0028-100 (Q3313)	

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AO	Jackson A.L. et al., "Expression profiling reveals off-target gene regulation by RNAi," Nat Biotechnol (Jun, 2003), 6,635-7.	
	AP	Ketting, R.F. et al., "Dicer functions in RNA interference and in synthesis of small RNA involved in developmental timing in C. elegans," <i>Genes Dev</i> (Oct 15,2001), 15, 2654-9.	
	AQ	Knight, R.W. et al., "A role for the RNase III enzyme DCR-1 in RNA interference and germ line development in Caenorhabditis elegans," <i>Science</i> (Sep 21,2001)., 293, 2269-71.	
	AR	Lagos-Quintana et al., "Identification of novel genes coding for small expressed RNAs," Science (2001) 294, 853-8.	
	AS	Lau C. et al., "An abundant class of tiny RNAs with probable regulatory roles in Caenorhabditis elegans," Science (Oct 26,2001), 294, 858-62.	
	AT	Lee et al., "An extensive class of small RNAs in Caenorhabditis elegans," Science (Oct 26,2001), 294, 862-4.	
	AU	Lee, R.C. et al., "The C. elegans heterochronic gene lin-4 encodes small RNAs with antisense complementarity to lin-14," <i>Cell</i> (Dec 3,1993), 75,843-54.	
	AV	Llave C. et al., "Endogenous and silencing-associated small RNAs in plants," Plant Cell (Jul, 2002), 14,1605-19.	
	AW	Llave C. et al., "Cleavage of Scarecrow-like mRNA targets directed by a class of Arabidopsis miRNA," Science (Sep 20,. 2002), 297,2053-6.	
	AX	Martinez J. et al., "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi," Cell (Sep 6,2002), 110, 563-74.	
	AY	McManus, T. et al., "Gene silencing in mammals by small interfering RNAs," Nat Rev Genet (Oct, 2002)., 3, 737-47.	

Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

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Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chic case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449B/PTO	Complete if Known		
WEST ATION DISCUSSION	Application Number	10/576,481	
INFORMATION DISCLOSURE	Filing Date	April 21, 2006	
STATEMENT BY APPLICANT	First Named Inventor	Zissimos Mourelatos	
	Art Unit	To be determined	
(Use as many sheets as necessary)	Examiner Name	To be determined	
Sheet 4 of 4	Attorney Docket Number	UPN0028-100 (Q3313)	

		NON PATENT LITERATURE DOCUMENTS				
Examiner   Cite   the item (book, magazine, journal, serial, symposium, catalog,		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²			
	AZ	Mourelatos, Z. et al., "miRNPs: a novel class of ribonucleoproteins containing numerous microRNAs," Genes Dev (2002) 16, 720-8.				
elegans by blocking LIN-14 protein synthesis after the initiation of translation," Dev Biol (15,1999), 216, 671-80.  BC Palatnik et al., "Control of leaf morphogenesis by microRNAs," Nature (Aug 20,2003), 25						
		Olsen P.H. et al., "The lin-4 regulatory RNA controls developmental timing in Caenorhabditis elegans by blocking LIN-14 protein synthesis after the initiation of translation," <i>Dev Biol</i> (Dec 15,1999), 216, 671-80.				
		Palatnik et al., "Control of leaf morphogenesis by microRNAs," Nature (Aug 20,2003), 257-263.				
		Plasterk R.H. et al., "RNA silencing: the genome's immune system,", Science (May 17,2002), 296,1263-5.				
	BE	Reinhart B.J. et al., "The 21-nucleotide let-7 RNA regulates developmental timing in Caenorhabditis elegans," <i>Nature</i> (Feb 24,2000), 403, 901-6.				
	BF	Reinhart B.J. et al, "Small RNAs correspond to centromere heterochromatic repeats," Science (2002) 297:1831.				
	BG	Rhoades M.W. et al., "Prediction of plant microRNA targets," Cell (Aug 23,2002), 110, 513-20.				
	вн	Seggerson K. et al., "Two genetic circuits repress the Caenorhabditis elegans heterochronic gene lin- 28 after translation initiation," <i>Dev Biol</i> (Mar 15,2002), 243, 215-25.				
Tabara et al., "The rde-1 gene, RNA interference, and transposon silencing in C. elegans," Ce 15,1999), 99, 123-32.		Tabara et al., "The rde-1 gene, RNA interference, and transposon silencing in C. elegans," <i>Cell</i> (Oct 15,1999), 99, 123-32.				
Examiner Signature		Date Considered				

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